



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,039	01/17/2002	Shishir Pardikar	2940	1257

7590 08/16/2006

LAW OFFICES OF ALBERT S. MICHALIK, PPLC
704 228 AVENUE NE
SUITE 193
SAMMAMISH, WA 98074

EXAMINER

SERRAO, RANODHI N

ART UNIT	PAPER NUMBER
----------	--------------

2141

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/052,039	PARDIKAR ET AL.	
	Examiner	Art Unit	
	Ranodhi Serrao	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10 July 2006 have been fully considered but they are not persuasive. The applicant argued in substance the newly added limitations of claims 16 and 33. However, the cited prior art of record teach these and the pending limitations. See rejections below.
2. The applicant furthermore repeated his argument from prior communication that the system of Serlet does not need to (nor can it) determine whether or not the WebDAV server is capable of handling specific file requests. This examiner points to the prior response to arguments dated 10 April 2006 and does not feel that it is necessary to repeat the response once again.
3. The applicant also argued that because the file system manager in French is already aware that the dedicated WebDAV FSD is functional as a result of the preconfigured relationship, there is not need to communicate with the WebDAV server to determine whether it can handle the request. The French reference is not cited to read on this limitation, Serlet is.
4. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

Art Unit: 2141

Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for the rejection is found in the reference. Therefore the combination is proper.

5. The applicant moreover argued that the Office action explicitly acknowledged that Serlet does not teach communicating with the WebDAV server to determine whether the request can be handled. However, this is incorrect since the previous Office action did not state this, instead it pointed out exactly how Serlet does indeed teach this claimed limitation.

6. The examiner points out that the pending claims must be “given the broadest reasonable interpretation consistent with the specification” [In re Prater, 162 USPQ 541 (CCPA 1969)] and “consistent with the interpretation that those skilled in the art would reach” [In re Cortright, 49 USPQ2d 1464 (Fed. Cir. 1999)]. In conclusion, upon taking the broadest reasonable interpretation of the claims, the cited references teach all of the claimed limitations. And the rejections are reaffirmed. See below.

Claim Objections

7. Claim 33 is objected to because of the following informalities: The added limitation, “an I/O manager for that manipulates...” is grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 15 and 32 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer-readable medium can be read as a carrier wave as stated in paragraph 24 of the specification.

10. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement.

11. The claimed invention as a whole must be useful and accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966)); In re Fisher, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); In re Ziegler, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

Claim Rejections - 35 USC § 103

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claims 1-11, 15-23, 25-27, and 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. (6,842,770) and French (6,654,794).

Art Unit: 2141

14. As per claim 1, Serlet et al. teaches in a computer network, a method comprising directing the I/O request to a WebDAV redirector communicating with the WebDAV server to determine whether the request can be handled by obtaining capability information from the WebDAV server (see Serlet et al., col. 6, lines 25-64; wherein the response from the WebDAV/HTTP server serves the function of capability information), and if so, requesting a file system to create the file (see Serlet et al., col. 7, lines 35-56), downloading the file to a local cache of the file system (see Serlet et al., col. 9, lines 54-63); returning a file handle corresponding to the file in the local cache to the application program (see Serlet et al., col. 11, lines 24-49); and providing access to the file in the local cache of the file system via the file handle (see Serlet et al., col. 9, line 64-col. 10, line 13); and receiving a request to close the file via the file handle, and when received, uploading the file from the local cache of the file system to the WebDAV server (see Serlet et al., col. 12, lines 45-54). But fails to teach receiving at an I/O manager an I/O request initiated from an application program directed to a file on a WebDAV server. French teaches receiving at an I/O manager an I/O request initiated from an application program directed to a file on a WebDAV server (col. 4, line 58-col. 5, line 19). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Serlet et al. to receiving at an I/O manager an I/O request initiated from an application program directed to a file on a WebDAV server in order to provide a client with an improved network file system driver for accessing a remote resource maintained by a server in communication with the client via a data network (see French, col. 2, lines 1-7).

Art Unit: 2141

15. As per claim 2, Serlet et al. and French teach receiving an I/O request initiated from an application program comprises, receiving a Universal Resource Identifier corresponding to a file on the WebDAV server (see Serlet et al., column 9, lines 38-53).

16. As per claim 3, Serlet et al. and French teach wherein receiving an I/O request initiated from an application program comprises, receiving a filename and an identifier previously mapped to a share on the WebDAV server (see Serlet et al., column 9, lines 54-63).

17. As per claim 4, Serlet et al. and French teach a method of communicating with the WebDAV server to determine whether the request can be handled, comprises, issuing an HTTP OPTIONS request, and evaluating a response therefrom (see Serlet et al., column 7, lines 35-56: wherein requests to create or delete a file or directory, etc. serve the function of HTTP OPTIONS request).

18. As per claim 5, Serlet et al. and French teach a method of communicating with the WebDAV server to determine whether the request can be handled, comprises, issuing a WebDAV PROPFIND request directed to share on the WebDAV server, and evaluating a response therefrom (see Serlet et al., column 11, lines 24-49).

19. As per claim 6, Serlet et al. and French teach a method wherein the WebDAV server returns property information in response to the WebDAV PROPFIND request directed to the share and further comprising, maintaining the property information in a local data structure (see Serlet et al., column 8, line 66-column 9, line 22; column 11, lines 50-65).

Art Unit: 2141

20. As per claim 7, Serlet et al. and French teach a method of communicating with the WebDAV server to determine whether the request can be handled, comprises, issuing a WebDAV PROPFIND request directed to on the WebDAV server, and evaluating a response therefrom (see Serlet et al., column 11, lines 24-49).

21. As per claim 8, Serlet et al. and French teach a method wherein the WebDAV server returns property information in response to the WebDAV PROPFIND request directed to the file, and further comprising, maintaining the property information in a local data structure (see Serlet et al., column 8, line 66-column 9, line 22; column 11, lines 50-65).

22. As per claim 9, Serlet et al. and French teach a method wherein communicating with the WebDAV server to determine whether the request can be handled comprises: issuing an HTTP OPTIONS request, evaluating a corresponding response, and determining that the server a WebDAV server (see Serlet et al., column 6, line 25-64); issuing a WebDAV PROPFIND request directed to a share on the WebDAV server, evaluating a corresponding response, and determining that the share exists on the WebDAV server, the response including share property information; and issuing a WebDAV PROPFIND request directed to the file, evaluating a corresponding response, and determining that the file exists, the response including file property information (see Serlet et al., column 11, lines 24-49).

23. As per claim 10, Serlet et al. and French teach a method of maintaining the share property information and the file property information in at least one local data structure (see Serlet et al., column 8, line 66-column 9, line 22; column 11, lines 50-65).

Art Unit: 2141

24. As per claim 11, Serlet et al. and French teach a method of communicating with the WebDAV server indicates that the request can be handled, and further comprising, communicating with at least one other local component to indicate that at least this request can be handled (see Serlet et al., column 5, lines 20-52).

25. As per claim 15, Serlet et al. and French teach a computer-readable medium having computer-executable instructions for performing the method claim 1 (see Serlet et al., column 2, line 51-column 3, line 19).

26. As per claim 16, Serlet et al. teaches a computer-implemented method, comprising: receiving at a local programming interface layer an application request that relates to a Uniform Resource Identifier (see Serlet et al., column 4, line 54-column 5, line 2 and column 5, lines 20-52); and determining at the WebDAV redirector whether a server identified via the application request comprises WebDAV-enabled server by obtaining capability information from the server, and if so, handling the request (see Serlet et al., col. 5, lines 20-52). But fails to teach providing information corresponding to the request to a local WebDAV redirector via an I/O manager. However, French teaches providing information corresponding to the request to a local WebDAV redirector via an I/O manager (see French, col. 4, lines 20-65). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Serlet et al. to providing information corresponding to the request to a local WebDAV redirector via an I/O manager in order to provide a client with an improved network file system driver for accessing a remote resource maintained by a server in communication with the client via a data network (see French, col. 2, lines 1-7).

Art Unit: 2141

27. As per claim 17, Serlet et al. and French teach the application request includes the Universal Resource Identifier (see Serlet et al., column 5, lines 20-52).

28. As per claim 18, Serlet et al. and French teach a method wherein the application request includes an identifier that has been previously mapped to at least part of the Universal Resource Identifier (see Serlet et al., column 9, lines 54-63).

29. As per claim 19, Serlet et al. and French teach a method of providing information corresponding to the request to a local WebDAV redirector comprises polling a set of at least one redirector (see Serlet et al., col. 6, lines 25-54: wherein status information serves the function of polling).

30. As per claim 20, Serlet et al. and French teach a method of providing information corresponding to the request to a local WebDAV redirector comprises polling a set of at least one network provider (see Serlet et al., col. 6, lines 25-54: wherein status information serves the function of polling).

31. As per claim 21, Serlet et al. and French teach a method wherein the application request comprises an I/O request directed to a file, and wherein handling the request comprises creating a local file corresponding to the I/O request (see Serlet et al., column 7, lines 35-56).

32. As per claim 22, Serlet et al. and French teach downloading at least some file data from the WebDAV server to the local file (see Serlet et al., column 4, lines 27-53: wherein accessing information serves as downloading file data).

Art Unit: 2141

33. As per claim 23, Serlet et al. and French teach returning a file handle corresponding to the local file to the application (see Serlet et al., column 11, lines 24-49).

34. As per claim 25, Serlet et al. and French teach determining at the WebDAV redirector whether the server identified via the application request comprises a WebDAV-enabled server includes, issuing an HTTP OPTIONS request to the server, and evaluating a corresponding response (see Serlet et al., column 6, line 65-column 7, line 34: wherein the request is an options request since it can be a command to write file, rename file, rename directory, etc.).

35. As per claim 26, Serlet et al. and French teach the application program's request indicates a share on the WebDAV server and further comprising, issuing a WebDAV PROPFIND request directed to the share on the WebDAV server (see Serlet et al., column 11, lines 24-49).

36. As per claim 27, Serlet et al. and French teach a method wherein the application program's request further indicates a file on the share on the WebDAV server, and further comprising, issuing a WebDAV PROPFIND request directed to the file (see Serlet et al., column 11, lines 24-49).

37. As per claim 32, Serlet et al. and French teach a computer-readable medium having computer-executable instructions for performing the method claim 16 (see Serlet et al., column 2, line 51-column 3, line 19).

38. As per claim 33, Serlet et al. teaches in a computer network, a system comprising, an application program that issues WebDAV-related requests including at

Art Unit: 2141

least one request having an identifier corresponding to a WebDAV server (see Serlet et al., column 6, lines 25-64); a WebDAV redirector, the WebDAV redirector configured to communicate with a network server to obtain capability information thereof (see Serlet et al., col. 11, lines 24-49), and to evaluate the capability information to determine whether the network server comprises a WebDAV-enabled server (see Serlet et al., col. 6, lines 25-64; wherein the response from the WebDAV/HTTP server serves the function of capability information); and when the capability information indicates that the network server is WebDAV-enabled, the WebDAV redirector locally handling each request corresponding to the WebDAV server that can be handled locally, and communicating with the WebDAV server to handle requests that cannot be handled locally (see Serlet et al., col. 7, lines 35-56). But fails to teach an I/O manager for that manipulates the WebDAV-related requests issued from the application program for providing to the WebDAV redirector. However, French teaches an I/O manager for that manipulates the WebDAV-related requests issued from the application program for providing to the WebDAV redirector (see French, col. 4, line 58-col. 5, line 19). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Serlet et al. to an I/O manager for that manipulates the WebDAV-related requests issued from the application program for providing to the WebDAV redirector in order to provide a client with an improved network file system driver for accessing a remote resource maintained by a server in communication with the client via a data network (see French, col. 2, lines 1-7).

Art Unit: 2141

39. As per claim 34, Serlet et al. and French teach a system wherein the identifier corresponding to a WebDAV server issued by the application comprises a Universal Resource Identifier (see Serlet et al., column 5, lines 20-52).

40. As per claim 35, Serlet et al. and French teach a system wherein the identifier corresponding to a WebDAV server issued by the application comprises an identifier previously mapped to a share on the WebDAV server (see Serlet et al., column 9, lines 54-63).

41. As per claim 36, Serlet et al. and French teach the above-mentioned limitations of claim 33, but Serlet et al. fails to teach a system wherein the WebDAV redirector receives requests from the application via an application programming interface.

However, French teaches a system wherein the WebDAV redirector receives requests from the application via an application programming interface (see French, col. 4, line 66-col. 5, line 19). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Serlet et al. to a system wherein the WebDAV redirector receives requests from the application via an application programming interface in order to perform its various operations and to provide the requisite functionality of its features (see French, col. 4, line 66-col. 5, line 19).

42. As per claim 37, Serlet et al. and French teach the above-mentioned limitations of claim 33, but Serlet et al. fails to teach a system wherein the WebDAV redirector receives the I/O request from a manager component. However, French teaches a system wherein the WebDAV redirector receives the I/O request from a manager component (see French, col. 4, lines 58-65). It would have been obvious to one having

Art Unit: 2141

ordinary skill in the art at the time of the invention to modify Serlet et al. to a system wherein the WebDAV redirector receives the I/O request from a manager component in order to order to perform its various operations and to provide the requisite functionality of its features (see French, col. 4, line 66-col. 5, line 19).

43. As per claim 38, Serlet et al. and French teach a system that: creates a local representation of the file (see Serlet et al., column 6, line 65-column 7, line 34); determines whether the file exists on the WebDAV server, and if so, downloads at least some of the data from the WebDAV server file to the local representation of the file (see Serlet et al., column 4, lines 27-53: wherein accessing information serves as downloading file data); returns a file handle corresponding to the local representation of the file to the application program (see Serlet et al., column 11, lines 24-49); receives I/O read and write requests associated with the file handle and handles the I/O read and write requests via the local representation of the file (see Serlet et al., column 11, lines 24-49; column 12, lines 35-44); and receives an I/O close request associated with the file handle, and handles the I/O close request by closing the local representation of the file and uploading at least part of the local representation of the file to the WebDAV server (see Serlet et al., column 11, lines 24-49).

44. Claims 12-14, 28-30, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. and French as applied to claims 1 and 16 above, and further in view of Prust (6,714,968).

Art Unit: 2141

45. As per claim 12, Serlet et al. and French teach the mentioned limitations of claim 1 above, but fail to teach determining that the file is encrypted on the WebDAV server, and wherein downloading the file to a local cache comprises, communicating with the file system to create an image of the file in the local cache that is also encrypted. Prust teaches determining that the file is encrypted on the WebDAV server, and wherein downloading the file to a local cache comprises, communicating with the file system to create an image of the file in the local cache that is also encrypted (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add determining that the file is encrypted on the WebDAV server, and wherein downloading the file to a local cache comprises, communicating with the file system to create an image of the file in the local cache that is also encrypted in order to allocate a corresponding storage area for each user and store the respective user information in metadata database (see Prust, col. 7, line 59-col. 8, line 7).

46. As per claim 13, Serlet et al., Prust, and French teach the mentioned limitations of claims 1 and 12 above, but Serlet et al. and French fail to teach communicating with the file system to open the image of the file such that the file system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file. Prust teaches communicating with the file system to open the image of the file such that the file system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read

Art Unit: 2141

or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add communicating with the file system to open the image of the file such that the file system will transparently decrypt file data on read requests and will transparently encrypt file data on write requests to the file in order to allow the user to access the respective storage area via the many access interfaces (see Prust, col. 7, line 59-col. 8, line 7).

47. As per claim 14, Serlet et al., Prust, and French teach the mentioned limitations of claims 1 and 12 above, but Serlet et al. and French fail to teach uploading the file from the local cache to the WebDAV server comprises, communicating with the file system to read data from the local image of the file such that the file will be uploaded as the encrypted image thereof. Prust teaches uploading the file from the local cache to the WebDAV server comprises, communicating with the file system to read data from the local image of the file such that the file will be uploaded as the encrypted image thereof (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add uploading the file from the local cache to the WebDAV server comprises, communicating with the file system to read data from the local image of the file such that the file will be uploaded as the encrypted image thereof in order to prevent unauthorized users from accessing information about other users (see Prust, column 7, lines 39-55).

48. As per claim 28, Serlet et al. and French teach the mentioned limitations of claim 16 above but fail to teach the application request comprises an I/O request directed to

Art Unit: 2141

an encrypted file, and further comprising, automatically decrypting the data locally when downloading the encrypted file from the WebDAV server and automatically encrypting the data locally when uploading the encrypted file to the WebDAV server. However, Prust teaches the application request comprises an I/O request directed to an encrypted file, and further comprising, automatically decrypting the data locally when downloading the encrypted file from the WebDAV server and automatically encrypting the data locally when uploading the encrypted file to the WebDAV server (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add the application request comprises an I/O request directed to an encrypted file, and further comprising, automatically decrypting the data locally when downloading the encrypted file from the WebDAV server and automatically encrypting the data locally when uploading the encrypted file to the WebDAV server in order to allocate a corresponding storage area for each user and store the respective user information in metadata database (see Prust, col. 7, line 59-col. 8, line 7).

49. As per claim 29, Serlet et al. and French teach the mentioned limitations of claim 16 above, but fail to teach the application request comprises an I/O request directed to a file that is encrypted on the WebDAV server, and wherein handling the request comprises, creating a local file corresponding to the I/O request and downloading an image of the file on the WebDAV server to the local file, wherein the local file is written by a local system such that the image corresponds to the encrypted image on the WebDAV server. However, Prust teaches the application request comprises an I/O

Art Unit: 2141

request directed to a file that is encrypted on the WebDAV server, and wherein handling the request comprises, creating a local file corresponding to the I/O request and downloading an image of the file on the WebDAV server to the local file, wherein the local file is written by a local system such that the image corresponds to the encrypted image on the WebDAV server (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add the application request comprises an I/O request directed to a file that is encrypted on the WebDAV server, and wherein handling the request comprises, creating a local file corresponding to the I/O request and downloading an image of the file on the WebDAV server to the local file, wherein the local file is written by a local system such that the image corresponds to the encrypted image on the WebDAV server in order to allow the user to access the respective storage area via the many access interfaces (see Prust, col. 7, line 59-col. 8, line 7).

50. As per claim 30, Serlet et al., Prust, and French teach the mentioned limitations of claims 16 and 29 above, but Serlet et al. and French fail to teach communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests. Prust teaches communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or

Art Unit: 2141

written). It would have been obvious to one having ordinary skill in the art at the time of the invention to add communicating with the file system to open the local file such that the file system will transparently decrypt file data read on read requests and will transparently encrypt file data written on write requests in order to store data files and communicate the data files to the storage server for storage within the storage area (see Prust, col.1, lines 49-67).

51. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al., French, and Prust (6,714,968). Serlet et al., French, and Prust teach the limitations mentioned above in claims 16, 29, and 30 but Prust and French fail to teach detecting a request to close the local file, closing the local file, communicating with the file system to open the local file such that the file will not be decrypted when read and uploading the file to the WebDAV server as an encrypted file. However, Serlet et al. teaches detecting a request to close the local file, closing the local file, communicating with the file system to open the local file (see Serlet et al., column 11, lines 24-49); such that the file will not be decrypted when read (see Serlet et al., column 12, lines 35-44); and uploading the file to the WebDAV server as an encrypted file (see Serlet et al., column 5, line 60-column 6, line 14: wherein authenticated access functions as being encrypted). It would have been obvious to one having ordinary skill in the art at the time of the invention to add detecting a request to close the local file, closing the local file, communicating with the file system to open the local file such that the file will not be decrypted when read and uploading the file to the WebDAV server as an encrypted file in order to allow only

the authorized user to have access to his/her data on the WebDAV server (see Serlet et al., col. 6, lines 15-23).

52. As per claim 39, Serlet et al. and French teach the limitations mentioned above in claims 33 and 38 and furthermore teaches a system wherein requesting the file system to create a local file that is opened such that transparent encryption and decryption are not enabled therefor (see Serlet et al., column 5, line 60-column 6, line 14: wherein authenticated access may not be enabled by the user); requesting the file system to close the local file (see Serlet et al., column 11, lines 24-49). But fails to teach the WebDAV file is encrypted, and wherein downloading at least some of the encrypted file data by requesting the file system to write to the local file without translation thereof. Prust however teaches the WebDAV file is encrypted (see Prust, column 7, lines 39-55: wherein encryption and decryption may be done either when the file is read or written); downloading at least some of the encrypted file data by requesting the file system to write to the local file without translation thereof (see Prust, column 7, lines 7-34). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Serlet et al. to a system wherein the WebDAV file is encrypted, and that creates the local representation of the file by downloading at least some of the encrypted file data by requesting the file system to write to the local file without translation thereof in order to allow an user to access virtual storage area using a conventional electronic mail software application (see Prust, column 7, lines 7-34).

53. As per claim 40, Serlet et al. and Prust teach the limitations mentioned above in claims 33, 38, and 39. Serlet et al. also teaches a system requesting the file system to

reopen the local file (column 11, lines 24-49). But fails to teach reads therefrom are decrypted and writes thereto are encrypted. Prust however teaches reads therefrom are decrypted and writes thereto are encrypted (column 7, lines 39-55). It would have been obvious to one having ordinary skill in the art at the time of the invention to add reads therefrom are decrypted and writes thereto are encrypted in order to allocate a corresponding storage area for each user and store the respective user information in metadata database (see Prust, col. 7, line 59-col.8, line 7).

54. As per claim 41, Serlet et al. and Prust teach the limitations mentioned above in claims 33, 38, 39, and 40. But Prust fails to teach when the WebDAV redirector handles the I/O close request, and before uploading the file, the WebDAV redirector closes the local representation of the file, and reopens the local file by requesting the file system to open the file such that reads therefrom are not decrypted. Serlet et al. however teaches a method of handling the I/O close request, and before uploading the file, closing the local representation of the file (see Serlet et al., column 11, lines 24-49), and reopening the local file by requesting the file system to open the file such that reads therefrom are not decrypted (see Serlet et al., column 5, line 60-column 6, line 14: wherein authenticated access function as being encrypted). It would have been obvious to one having ordinary skill in the art at the time of the invention to add a method of handling the I/O close request, and before uploading the file, closing the local representation of the file, and reopening the local file by requesting the file system to open the file such that reads therefrom are not decrypted in order for authorized users to access their data

Art Unit: 2141

on the WebDAV server without needing to input authentication information for every transmission (see Serlet et al., col. 6, lines 15-23).

55. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serlet et al. and French as applied to claim 16 above, and further in view of Deen et al. (6,629,127). Serlet et al. and French teach the mentioned limitations of claim 16 above, but fail to teach a networking request to browse a network share on the WebDAV server, and wherein handling the request includes enumerating information of the network share. However, Deen et al. teaches a networking request to browse a network share on the WebDAV server, and wherein handling the request includes enumerating information of the network share (see Deen et al., column 16, line 48-column 17, line 15). It would have been obvious to one having ordinary skill in the art at the time of the invention to add a networking request to browse a network share on the WebDAV server, and wherein handling the request includes enumerating information of the network share in order to carefully track the structure of the namespace and not the physical layout of the file system (see Deen et al., col. 16, line 48-col. 17, line 15).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within


Art Unit: 2141

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571)272-7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER